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Abstract

The present invention relates to a wireless communication device, such as a transponder, that has a plurality of antennas for multi-frequency usage. The wireless communication device comprises a control system, communication electronics, memory, and the aforementioned antennas. A wireless communication device having a pole antenna may be used with one or more loop conductor antennas to achieve the desired operating frequencies. A wireless communication device having a dipole antenna may be coupled across a loop conductor antenna to provide different loop conductor configurations depending on the frequency.